Filing Date: October 18, 2000

Title: TRANSISTOR WITH VARIABLE ELECTRON AFFINITY GATE AND METHODS OF FABRICATION AND USE

#### **REMARKS**

This is in response to the Office Action mailed on September 30, 2004.

Claims 71, 74, 77, and 80 are amended, no claims are canceled, and no claims are added; as a result, claims 36-39, 59-61, 71-85, 98, and 99 are now pending in this application. The amendments to the claims are fully supported by the specification as originally filed. No new matter is introduced. Applicant respectfully requests reconsideration of the above-identified application in view of the amendments above and the remarks that follow.

## First §103 Rejection of the Claims

Claims 71, 73, 74, 76, 77, 79, 80, and 82 were rejected under 35 USC § 103(a) as being unpatentable over Aoyama et al. (U.S. 4,507,673). Applicant traverses these grounds of rejection of these claims.

Applicant cannot find in Aoyama et al. (hereafter Aoyama) a teaching or suggestion of a floating gate comprising a silicon carbide compound  $Si_{1-x}C_x$ , wherein x is selected to be between 0.6 and 1.0, as recited in claim 71. Thus, Applicant submits that Aoyama does not teach or suggest all the elements of claim 71 and that claim 71 is patentable over Aoyama.

Applicant cannot find in Aoyama a teaching or suggestion of a floating gate comprising a silicon carbide compound  $Si_{1-x}C_x$ , wherein x is selected to be between 0.1 and 0.4, as recited in claim 74. Thus, Applicant submits that Aoyama does not teach or suggest all the elements of claim 74 and that claim 74 is patentable over Aoyama.

Applicant cannot find in Aoyama a teaching or suggestion of a floating gate comprising a silicon carbide compound  $Si_{1-x}C_x$ , wherein x is selected to be between 0.1 and 0.4, as recited in claim 77. Thus, Applicant submits that Aoyama does not teach or suggest all the elements of claim 77 and that claim 77 is patentable over Aoyama.

Applicant cannot find in Aoyama a teaching or suggestion of a floating gate comprising a silicon carbide compound  $Si_{1-x}C_x$ , wherein x is selected to be between 0.6 and 0.75, as recited in claim 80. Thus, Applicant submits that Aoyama does not teach or suggest all the elements of claim 80 and that claim 80 is patentable over Aoyama.

Claims 73, 76, 79, and 82 depend on claims 71, 74, 77, and 80, respectively, and are patentable over Aoyama for at least the reasons stated above. Applicant respectfully requests

withdrawal of these rejections of claims 71, 73, 74, 76, 77, 79, 80, and 82, and reconsideration and allowance of these claims.

### Second §103 Rejection of the Claims

Claims 72, 75, 78, and 81 were rejected under 35 USC § 103(a) as being unpatentable over Aoyama et al. (U.S. 4,507,673) in view of Parris et al. (U.S. 5,604,700). Applicant traverses these grounds of rejection of these claims.

Applicant cannot find in Paris et al. (hereafter Paris) a teaching or suggestion of features that cure the deficiencies of citing Aoyama with respect to independent claims 71, 74, 77, and 80 as noted above. Therefore, Applicant submits that the combination of Aoyama and Paris does not teach or suggestion all the elements of claims 71, 74, 77, or 80, and that claims 71, 74, 77, and 80 are patentable over Aoyama in view of Parris for at least the reasons stated above. Claims 72, 75, 78, and 81 depend on claims 71, 74, 77, and 80, respectively, and are patentable over Aoyama for at least the reasons stated above.

Applicant respectfully requests withdrawal of these rejections of claims 72, 75, 78, and 81, and reconsideration and allowance of these claims.

#### Allowable Subject Matter

Claims 36-39, 59-61, 83-85, 98, and 99 were allowed.

Applicant acknowledges allowance of these claims. The Office Action makes statements regarding the contents of the art and distinguishing features of the claims. Applicant has neither verified nor accepted the accuracy of these statements, and respectfully submits that there may be different interpretations that those identified in the Office Action. Additionally, Applicant respectfully submits that the relevant claims may be allowable for one or more reasons in addition to and/or in alternative to those reasons identified in the Office Action. Applicant reserves the right to further address one or more aspects of these statements in the Office Action as may later be necessary or desirable.

#### Assertion of Pertinence

Applicant has not responded to the assertion of pertinence stated for the patents cited, but not relied upon, by the Office Action since these patents are not relied upon as part of the

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rejections in this Office Action. Applicant is expressly not conceding they have any pertinence and reserves the right to respond more fully should any of them form a part of some future rejection.

# **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 371-2157 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

LEONARD FORBES ET AL.

By their Representatives,

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Date 30 December 2004

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 3dd day of December, 2004.

Name

Signature